

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
26 February 2004 (26.02.2004)

PCT

(10) International Publication Number
WO 2004/017099 A3

(51) International Patent Classification⁷: **G01N 21/00**

(21) International Application Number:
PCT/IL2003/000688

(22) International Filing Date: 19 August 2003 (19.08.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/404,144 19 August 2002 (19.08.2002) US

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(81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE

(utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

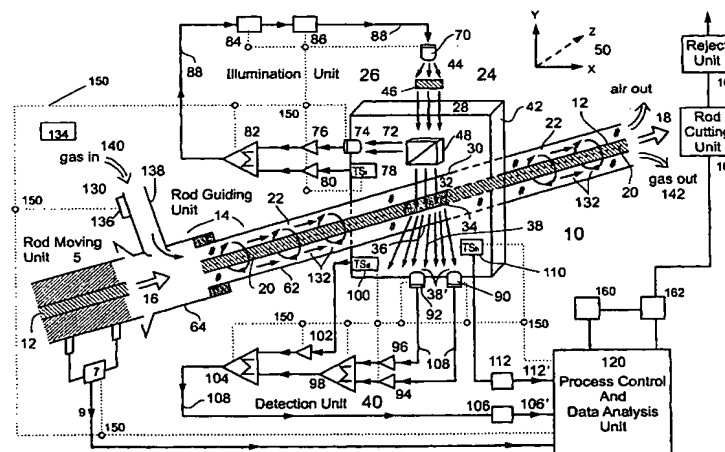
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
6 May 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **ELECTRO-OPTICALLY INSPECTING A LONGITUDINALLY MOVING ROD OF MATERIAL**



(57) Abstract: Electro-optically inspecting a longitudinally moving rod of material (12). Guiding rod (12) along its longitudinal axis by rod guiding unit (14), along optical path (20) within transparent passageway (22). Optical path (20) and transparent passageway (22) coaxially extend along longitudinal axis of rod (12) and pass through an electro-optical transmission module (24). Focused beam (28) from illumination unit (26) is transmitted through first side (30) of transparent passageway (22) and incident upon rod (12) within transparent passageway (22). Illuminating volumetric segment (34) of rod (12) by incident beam (32), such that incident beam (32) is affected by and transmitted through volumetric segment (34) and transmitted through second side (36) of transparent passageway (22), for forming rod material transmitted beam (38). Detecting transmitted beam (38) by detection unit (40), for forming rod material volumetric segment transmitted beam useable for determining internal properties and characteristics of rod of material (12).

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL03/00688

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G01N 21/00

US CL : 432, 433, 434, 435, 237.1, 239.1, 239.4, 239.5, 239.6

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 432, 433, 434, 435, 237.1, 239.1, 239.4, 239.5, 239.6

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,610,542 A (RINGLIEN) 09 September 1986, see entire document.	1-20
A	US 4,606,634 A (BIERINGER) 19 August 1986, see entire document.	1-20

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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Date of the actual completion of the international search

13 February 2004 (13.02.2004)

Date of mailing of the international search report

25 MAR 2004

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